## REMARKS

Claims 1 - 35 are currently pending in the application. Claims 1 - 3 and 27 have been allowed. No new matter has been added by this amendment.

Claims 4 - 26 and 28 - 35 have been rejected under 35 U.S.C. 112 second paragraph, as being indefinite. This rejection is traversed.

The attached table is provided to assist the Examiner to assist in identifying the particular Figures and the related description from the specification for each claim to which the Examiner has rejected. The table identifies at least one figure with related specification discussion reference for each claim, however, the claims applicability is not limited to the figures identified in the table.

The electron beam tester uses a data processing capability to perform various determining functions to include examine, obtain, measure, analyze, calculate, compare, integrate, and display. The data processor function was shown on the general figures 1 and 2 and was intended to allow following figures to show only a small portion of the overall functional tester without including all functional blocks of the overall general figure. However, in an effort to be responsive to the Examiner, the compensation current amplifier and the data processing function have been added to Figures 6a, 7a, 10a, 11a,12a, 14a, 15a, 16a, 17a, 18a, 19a, 20a, 21a, 22b, 49, 50, 51, 52, 53, and 54. In addition, Figure 40 has been amended to provide a typographical revision. The Position Detector and Stage Controller functions shown in the general Figure 40 have been added to Figures 49, 50, 51, 52, 53, and 54.

The attached Table provides the specification and figure references for each of the Examiners questions. For example, the Examiner has objected to Claim 10 stating that it is not clear how the secondary electron beam and penetration depth of the electron beam is used with different scanning voltages to obtain the three dimensional configuration of the contact hole. The second electron beam is used at an angle as shown in Figures 14a, 15a, and 16a and is referred to on page 40, line 27

of the specification. The use of the secondary beam is further explained on pages 41 - 44 for various contact hole shapes. Furthermore, page 67 line 27 through page 70 line 7 provides a detailed description of the secondary electron beam and the use of different acceleration voltages to provide the measurement of the three-dimensional configuration of the contact hole. The Table can be reviewed in light of this example for each issue raised in the office action, and it is believed that the Table is fully responsive to every issue raised.

In view of the foregoing, it is requested that the application be reconsidered, that claims 1 - 35 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at 703-787-9400 (fax: 703-787-7557; email: mike@wcc-ip.com) to discuss any other changes deemed necessary in a telephonic or personal interview.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,

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| Claim | Status | PTO Reason | Related Figure Include: | Page Include: | Lines Include: |
|---|---|---|---|---|---|
| 1 | Allowed | ALLOWED | | | |
| 2 | Allowed | ALLOWED | | | |
| 3 | Allowed | ALLOWED | | | |
| 4 | Rejected | means for obtaining a distance of a bottom of said measuring region from a space between rising and following edges of a current measured along said line segment | 6a, 6b, 7a, 7b | ? | |
| 5 | Rejected | area calculation means | 8 | 30 - 31 | 25 - 28 1 - 6 |
| 6 | Rejected | distance calculation means | 9 | 32 - 33 | 21 - 28 1 - 2 |
| 7 | Rejected | means for calculating a ratio of value | 10a, b, c | 30 - 31 | 25 - 28 1 - 6 |
| 8 | Rejected | means for determining the value of current produced when a standard sample is irradiated with electron beam | 1 & 2 | 24 | 11 |
| 9 | Rejected | means for comparing a current value measured | 13 | 34 | 18 - 26 |
| 10 | Rejected | a secondary electron detector ? | 14a, 15a, 16a (33) | 40 - 44 67 - | 12 - 24 27 - 7 |
| 11 | Rejected | means for obtaining a bottom distance AND means for obtaining an upper distance | 14a, 15a, 16a (33) | 40 | 12 - 24 |
| 12 | Rejected | means for three dimensionally displaying a circular pillar or a frustrum of a cone | 14c, 15c, 18c, 50, 55 | 29 - 40 - 44 | 3-8 (pg 29) 27 (pg |
| 13 | Rejected | means for processing a tilting angle of sample | 53, 54, 55 | 68 | 20 - 25 |
| 14 | Rejected | recording means | | 34 | 20 - 22 |
| 15 | Rejected | means for setting a cross sectional shape | 1, 2, 3a, 3b | 22 - 25 | 24 (pg 22) - 8 (pg 24) |
| 16 | Rejected | means for calculating differentiated curve of current value AND means for obtaining a radius of a bottom portion | 8, 9 6b, 7b | 29 28 | 9 - 18 1 - 8 |
| 17 | Rejected | means for displaying | 35, 37, 40 | | |
| 18 | Rejected | means for comparing a measured value AND means for extracting positional | 25, 26, 27, 28 | 51 - 54 | |

| | | | | |
|---|---|---|---|---|
| Rejecte 19 d | | | | |
| Rejecte 20 d | | | | |
| Rejecte 21 d | | | | |
| Rejecte 22 d | means for comparing waveform | 25 (123) | 52 | 10 |
| Rejecte 23 d | means for integrating current from a rising edge AND divider means | 35, 37, 38 | 61 62 | 23 (pg 61) - 23 (pg 63) |
| Rejecte 24 d | means for comparing | 37, 38 | 62 | 21 |
| Rejecte 25 d | means for comparing center position | 44 | 65 | 23 28 |
| Rejecte 26 d | sub scan means | 45, 46 | 66 | 9 (pg 66) - 6 (pg 67) |
| 27 Allowed | ALLOWED | | | |
| Rejecte 28 d | means for obtaining a three dimensional configuration of a through hole | 53, 54, 55 | 67 - 70 78 | 27 (pg 67) - 7 (pg 70) |
| Rejecte 29 d | means for detecting whether a diameter of a through hole | 53, 54, 55 | 67 - 70 78 | 27 (pg 67) - 7 (pg 70) |
| Rejecte 30 d | means for detecting deviation of a circuit pattern in an insulating film | 60, 61, 62, 63, 66, 67, | 70 - 75 | |
| Rejecte 31 d | means for detecting deviation of a circuit pattern in an insulating film | 60, 61, 62, 63, 66, 67, | 70 - 75 | |
| Rejecte 32 d | means for taking in an information | 67 | 74 | 22 - 28 |
| Rejecte 33 d | means for correcting current component | 69, 70 | 76 | 13 - 17 |
| Rejecte 34 d | means for changing a repetition period of electron beam AND means for obtaining | 69 | 76 | 21 - 28 |
| Rejecte 35 d | means for switching scan speed | 70 | 77 | 3 - 13 |